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MEMORANDUM FOR: Deputy Director (Plans)

ATTENTION: Chief, FE

SUBJECT: Transmittal of Revised Paper on Impact of the Tibetan Campaign on the Economy of Communist ChinaREFERENCE: ORR Paper on Impact of the Tibetan Campaign on the Economy of Communist China, dated 1 February 1960

The attached paper on the Impact of the Tibetan Campaign on the Economy of Communist China, dated 13 July 1960, has been prepared in response to your request of 8 July 1960. This study revises and updates the ORR paper on the same subject, dated 1 February 1960. Although some of the detailed information discussed in the attached paper has been changed since February, the general conclusion of the previous paper remains valid, namely, that the current and potential military activity in Tibet has and will have only a modest if not almost negligible impact on the economy of Communist China. If any change has taken place during the first half of 1960, it has been in the direction of a strengthening rather than a weakening of the logistic position of the Chinese Communists with respect to that of the Tibetan rebels.

[Redacted Signature Box]
 Acting Assistant Director
 Research and Reports

Enclosure:
 Subject Report

ORR/S/TR: [Redacted] :ccg/4579 (13 Jul 60)

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IMPACT OF THE TIBETAN CAMPAIGN ON THE ECONOMY
OF COMMUNIST CHINA

13 July 1960

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I. Overland Supply of Troops in Tibet

A. Troop Dispositions in Tibet

Chinese Communist Combat forces in the Tibet Military Region are presently divided into two major groups. One group of about 73,500 troops is concentrated in the general vicinity of Lhasa and the other group consisting of about 47,500 men is located in the area around Ch'ang-tu in eastern Tibet. An additional 4,700 men are stationed opposite the Nepal border and 2,300 are located in western Tibet around Gartok.

1. Supply of Troops over the Tsinghai-Tibet Highway

Combat units in the Lhasa area and along the Nepal border are supplied over the Tsinghai-Tibet highway. The basic capacity of the Tsinghai-Tibet highway is estimated at 32 trucks per hour in each direction or 960 tons each way per 10-hour day. The Chinese Communists can deliver approximately 520 tons of all classes of military supplies daily to Lhasa. The difference between total tonnage and tonnage delivered represents fuel consumed on the 1,900 mile trip. The daily supply requirements of units dependant on the Tsinghai-Tibet road total 325 tons per day. Thus, there is an unused capacity of 195 tons, enough to support an additional 47,000 men under the estimated daily supply requirement of 62.3 tons per 15,000 men.

2. Supply of Troops over the Szechwan-Tibet Highway

The major portion of Chinese Communist combat units in the Ch'ang-tu area are supplied over the Szechwan-Tibet highway. The basic capacity of the Szechwan-Tibet highway is estimated at about half the capacity of the Tsinghai-Tibet route, or 16 trucks per hour in each direction for a total of 480 tons each way per 10-hour day. In total, about 350 tons of military supplies could be delivered daily to Ch'ang-tu. The daily supply requirements of the troops presently in the Ch'ang-tu area total about 275 tons per day, leaving an unused road capacity of 75 tons. This capacity would be large enough to support an additional 13,000 men under the estimated daily supply requirement of 36.8 tons per 15,000 men. It should be noted that recent construction work on the Szechwan-Tibet highway may have increased its capacity to nearly 75 percent of the estimated capacity of the Tsinghai-Tibet highway, instead of 50 percent as indicated above. In total, the Tsinghai-Tibet and the Szechwan-Tibet roads could support about 188,000 men in Tibet, if their daily requirements are estimated as indicated above for each separate area.

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CIA INTERNAL USE ONLY3. Supply of Troops over the Hsi-ning - Yu-shu Highway

Scattered Chinese Communist combat units stationed on the northern edge of the Ch'ang-tu area and the new Chinese Communist airfield at Yu-shu probably are supplied over the Hsi-ning - Yu-shu road. From the railhead at Hsi-ning the road extends some 425 miles southwest to Yu-shu. This road is believed to be roughly comparable to the Tsinghai-Tibet highway and has an estimated capacity of 32 trucks per hour in each direction or 960 tons each way per 10-hour day. If necessary, a total of about 800 tons could be delivered daily to the Yu-shu area. From Yu-shu caravan trails, some of which may be motorable, extend southwest to Nagchun Dzong (Hsi-ho) on the Tsinghai-Tibet highway, southwest to intersect the Szechwan-Tibet highway west of Ch'ang-tu, and southeast to intersect the Szechwan-Tibet highway east of Ch'ang-tu. Although the roads south from Yu-shu may be of limited motorability, they do provide a means of providing logistic support to troops operating in the area between Nagchun Dzong, Yu-shu, and Ch'ang-tu.

4. Supply of Troops over the Sinkiang-Tibet Highway

Chinese Communist combat units stationed in the Gartok area are supplied over the Sinkiang-Tibet highway. About 50 tons of military supplies can be delivered daily to Gartok during the 6 months of the year when the road is motorable. This amount is more than adequate to take care of the daily supply requirement of the 2,300 troops in the Gartok area which is presently estimated at 8 tons per day. It is believed that a new civilian transport group has recently been deployed along this route with the primary mission of supplying all the military and two-thirds of the civilian requirements of the area.

5. Miscellaneous Routes

In addition to the supply routes mentioned above, the Chinese Communists have improved their logistic capabilities in the area between Ihsa and Ch'ang-tu by the construction of several new roads. The Szechwan-Tibet highway is also open to traffic at present all the way to Ihsa, and could be used to supplement the movement of supplies trucked in over the Tsinghai-Tibet highway.

a. Tatienlu (K'ang-ting) to Batang

This road, an alternate approach to Ihsa which bypasses Ch'ang-tu, has been under construction for some time. The road is currently believed to be motorable as far west as Batang and possibly to Minching. West of Batang the road is probably under construction and will eventually intersect the Szechwan-Tibet highway south of Ch'ang-tu.

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b. Nagchhu Dzong (Hsi-ho) to Ch'ang-tu

Construction of this route has been underway simultaneously from both ends for some time. The portion of the road from Nagchhu Dzong eastward to So-taung, a distance of about 120 miles, is believed to be complete. The portion from Ch'ang-tu westward as far as Denchin (Dinching), a distance of some 125 miles, may also have been completed. Even after this route is open to through traffic, it will not add appreciably to the logistic capability for moving supplies into Tibet, but it will provide better support to combat units in the area.

II. Supply of Troops in Tibet by Airlift

As of 21 March 1960 the Chinese Communist Air Force was estimated to possess 28 C-46's, 49 Li-2's, 42 IL-14's, 36 IL-12's, and 2 IL-18's. An estimated 20 Tr-4's have also been converted to transport use. The lifting capacity of this fleet of aircraft varies with the distance required to be flown. Airfields at Ch'ang-tu, Hsi-ning, Lan-chou, Sian, Yu-shu, and Golmo are the ones most likely to be used for an airlift operation into Tibet. The estimated average distance from these points to Lhasa (Tang-haiung Airfield) is 644 nautical miles or 1,193 kilometers. The average round trip would be 1,288 nautical miles.

If the entire park of transport aircraft less the 49 Li-2's is treated as a unit, its total lifting capacity per single trip to Lhasa is approximately 634 short tons. A round trip of all transport aircraft in the inventory, other than the Li-2's, will consume about 542 tons of aviation gasoline and 18.5 tons of jet fuel. Taking into consideration the flying time to Lhasa, the time involved in unloading, and the possible lack of night operation facilities at Lhasa, it is estimated that an average of one flight every three days could be made by each plane for a period of as much as a month. In an airlift operation, if each plane made a trip every third day, or 10 trips a month, a total of approximately 6,344 short tons of cargo could be moved. An average of 10 round trips for each aircraft per month would require approximately 5,418 tons of aviation gasoline plus 185 tons of jet fuel. The tonnage delivered daily to Lhasa by air would total approximately 211 tons, an amount large enough to support an additional 50,000 troops with a daily supply requirement of 62.3 tons per 15,000 men or about 35,000 troops with a daily supply requirement of 86.8 tons per 15,000 men.

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CIA INTERNAL USE ONLY**III. Impact of the Tibetan Campaign on the Economy****A. Truck Park**

Approximately 7,100 trucks are needed to supply military troops in Tibet under present conditions. Estimated truck requirements for the two logistic supply routes are: (1) Tsinghai-Tibet road--5,050 trucks, and (2) Szechwan-Tibet road--2,050 trucks. The small number of trucks employed on the Sinkiang-Tibet highway would not affect the conclusions of this analysis, and this route has been eliminated from the following discussion.

If the number of military troops in the Lhasa and Ch'ang-tu areas of Tibet were increased to the maximum number which could be supported by the Tsinghai-Tibet and Szechwan-Tibet highways, about 10,700 trucks would be required for the supply operation. Of this total 8,070 trucks would be employed on the Tsinghai-Tibet road and about 2,640 trucks on the Szechwan-Tibet road. At the end of 1959 there were probably more than 200,000 trucks in Communist China, about equally divided into military and civilian truck parks. During the first half of 1960 the combined military-civilian park probably increased by another 10,000 to 20,000 trucks.

It is estimated that more than 10,700 trucks (the number needed to operate the two roads at maximum capabilities) are available in the three military regions of Tibet, Lan-chou (Kansu, Tsinghai, Shensi) and Sinkiang. There are also indications that a new military transport group with an estimated 1,000 trucks was deployed early in 1960 along the Hsiang-tung - Gohao portion of the Tsinghai-Tibet highway with the primary mission of providing support to military units in Tibet. In addition, there are an unknown number of trucks assigned to quasi-military units, particularly in Sinkiang, which could be made available if the Chinese Communists were willing to impair the progress on economic projects which these trucks support.

At least 15,000 civilian trucks were employed for economic activities in the provinces of Kansu, Sinkiang, and Tsinghai in February 1960. Since that time the truck parks of these provinces have probably been increased. Because of the absence of other forms of transport, these civilian trucks could be diverted only if the Chinese were willing to reduce the current scale of economic activity. It is estimated that civilian trucks will not be diverted for support of military activities in Tibet; however, if they

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are diverted, these civilian trucks will be drawn from the eastern provinces of China where primitive transport can be used to compensate partially for deficiencies of modern forms of transport.

Thus it is estimated that the Chinese Communists are capable of providing the additional 3,600 trucks necessary to utilize the two logistic roads into Tibet to their full capabilities. These trucks would probably be made available from the military park. If, however, the trucks were drawn from the civilian park, they would probably come from the eastern sections of China. The 10,700 trucks necessary to operate the two primary logistic routes at maximum capability would be about 5 percent of the total Chinese truck park, or about 11 percent of the military truck park. Since the Chinese are currently producing trucks at the rate of about 2,000 per month, any trucks destroyed by rebel activity in Tibet would quickly be replaced by new trucks or by trucks imported from other countries of the Soviet Bloc.

B. Petroleum

If the two logistic supply routes into Tibet are used at full capacity to supply 188,000 combat troops, the ground forces would consume petroleum products at an annual rate of about 300,000 tons. During 1960 civilian motor truck transport may consume more than 25,000 tons, making a total of about 325,000 tons. A supplementary air-lift could add 67,000 tons for a grand total of 393,000 tons required.

Total availability of petroleum products in Communist China, from domestic production and imports, will be about 9.7 million short tons in 1960. The motor truck requirement for petroleum in Tibet could run as high as 3.4 percent of national availability in 1960 if the roads are used at full capacity. If the Tibet operation is increased to the extent that aircraft are used to supplement road transport, fuel requirements for the operations of the transport aircraft would represent 11 percent of the aviation fuel available in 1960, assuming that 1960 imports are about equal to those of 1959. The actual availability of aviation fuel in 1960, however, will depend upon the demand for it as it is nearly all imported.

It is believed that petroleum for Tibet is applied from the refineries at Yu-men, Lan-chou, and Lang-hu in the Tsaidam Basin. In 1960 these three refineries are expected to produce 1.2 million tons of gasoline and diesel fuel. The maximum estimated ground force requirements for Tibet are about 27 percent of this production.

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Tibet has traditionally produced almost all the food and clothing requirements of the Tibetan people. Part of the population is Chinese, however, and additional Chinese workers have been brought in for the borax and other industries and to construct and repair roads. The food requirement for the troops stationed in Tibet could amount to 114,000 tons per year if the roads are used to capacity to supply 138,000 men. Thus, the amount of food needed from the Chinese economy to support Chinese military units and civilian groups might be as much as 230,000 tons per year. This is a negligible proportion of the 64 million tons of grain which the Chinese government expects to collect during 1960 for distribution to the urban population, to the military, for export, and for redistribution to rural areas.

D. Other

Prolonged resistance activities in Tibet might lead China to expand further the construction of roads and airfields in and around Tibet and to begin the planned railroad line from Golao to Lhasa. These construction activities could require reallocations within the Chinese economy, and diversion of resources from other important projects. However, these roads and airfields could be constructed primarily from local materials and with military or local labor. If construction of the railroad line to Lhasa were to begin in the near future, it would involve some diversion of rails which are in short supply from other important railroad construction.

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